

APPENDIX L

SCOPE OF WORK

# **Friendship Heights Transportation Study**

## **Scope of Work**

### **March, 2003**

#### **Purpose**

The District Department of Transportation (DDOT) proposes to investigate traffic management and truck management improvements in the Friendship Heights area of Northwest Washington, DC. These efforts are in response to citizen concerns regarding speeding traffic, excessive truck traffic and other safety concerns. The purpose of the study is to examine existing and future traffic conditions in the study area and to determine short-term and long-term traffic management and infrastructure improvements to reduce traffic congestion, especially during peak morning and evening travel hours, reduce truck traffic, improve traffic and pedestrian safety and protect surrounding residential streets from traffic impacts.

#### **Study Area**

The "study area" for this project includes the following area:

- Western Avenue NW; 41<sup>st</sup> Street, NW; Fessenden Street, NW, and 45<sup>th</sup> Street, NW.

#### **Definition of Work**

Berger will examine existing and projected traffic conditions in the study area and make recommendations to reduce truck traffic, and improve mobility and traffic safety. Over a 20-week period, (with the twenty weeks beginning March 13, with the full ANC scoping meeting), Berger will investigate current and future needs regarding vehicle, pedestrian and bicycle mobility and safety and work in close coordination with community stakeholders in addressing their traffic and safety concerns.

#### **Description of Work to Be Performed**

##### **Task 1: Scoping Meeting**

Berger will develop a meaningful community participation process that will consist of at least four meetings with community stakeholders in the Friendship Heights study area. The purpose of these meetings will be to obtain input for development of the traffic management concept designs. The first meeting will be held with Advisory Neighborhood Commission 3-E, local community groups and stakeholders to discuss the proposed scope of work and schedule for the traffic study, and receive public comment. This meeting will be scheduled for the second week of the study, or as soon as practical for appropriate public notification. The aim of this meeting will be to announce the project to the neighborhood, outline the projected timeframe for the study and introduce the contractor to community stakeholders. This meeting will also allow for community input in refining the study scope of work.

Scoping meetings will include agency coordination meetings with the staff of DDOT's Office of Policy and Planning, and Traffic Services Administration, the D.C.'s Office of Planning, the ANC's and other Civic Groups as identified by the DDOT.

For **each** public meeting, Berger will secure the location, provide visuals, sign-in sheets, comment forms and talking points. It is assumed that meetings will be held in public spaces such as schools or libraries, with meeting space rental charges limited to minimal clean-up fees (assuming \$25 to \$100 per meeting, budgeted at an average of \$50.) In addition, Berger will perform the following tasks:

- a) Berger will draft a Public Notice of the meeting for publication in one (1) local newspaper of record (Washington Post) and one (1) neighborhood newspaper.
- b) Berger will review, log, and generally categorize *substantive* written comments that are received from the public during the specified comment periods after each public meeting. General comment letters from citizens will be responded to with a standard letter of acknowledgement if so requested by DDOT.
- c) Comments received that contain a complete mailing address will be geocoded and visually mapped to ascertain the geographic location of public participants in the public involvement process.

Meetings with DDOT staff and DC's Office of Planning will verify both the on-going and planned studies and development activities within the study area. Based on the information collected from these meetings, a preliminary scope of work will be prepared before the first community meeting. The first meeting will be scheduled approximately two weeks after the preliminary scope is approved and notice to proceed is issued. With the Community input at the first public meeting, the Scope of Work and Budget for this Task Order will be finalized. Scope changes that would result in additional work after the first community meeting shall be discussed with DDOT's OPP Project Manager as a change order. Berger will obtain court reporters for up to two of the four public meetings, at the discretion of the Project Manager.

The second public meeting will occur after Task 2 (data collection) has been completed and while Tasks 3 and 4 are still under development. The third public meeting will be held after Task 5 is completed. The fourth public meeting will be held after Task 7 is completed. With the assistance of the Division of Transportation and the Office of Planning, Berger will develop a project contact/ mailing list of parties within the study area and other interested parties. Berger will also post study information on the DDOT web site.

#### **Task #1 to be completed by the end of Week Two**

#### **Task 2: Collect and Consolidate Data**

The contractor will collect data on the following elements:

- 2.01 Existing traffic volumes and level of service (LOS) for roadway segments within the study area. This includes mapping, aerial photography, historical research and other materials available from the DC Office of Planning, DPW Traffic Services and Transportation Planning, and other District and Federal government agencies.*

Berger will meet with DC Offices of Planning, Traffic Services and Transportation Planning during week 2 or as soon as DC staff are available to identify and obtain

relevant materials, maps and studies. These meetings are also intended to identify whether other studies or projects are either underway or planned by other divisions that could complement or compromise the current study. It is assumed for budget purposes that aerial photography, maps (including digital GIS files), studies and reports will be provided to Berger free of charge for its use during the study. Materials may be returned to DC staff at the conclusion of the project upon request.

Traffic volumes and LOS will be used to confirm the definitions of different roadways in the area as primarily Collector or Arterial roadways, with the accompanying implications for traffic calming measures that may be considered based on District of Columbia Traffic Calming Policies and Guidelines.

Accident Data- Berger will obtain records of traffic accidents for all key intersections and links within the study area from the DDOT's Traffic Services Administration (TSA) covering the most recent three-year period for which data is available. Berger will analyze the data to identify safety-deficient locations along the Corridor.

Berger will also contact the appropriate Federal and Local officials to determine the historic or archeological significance of properties in the area, to ensure that any streetscape strategies that may be recommended are compatible with such designations.

*2.02 Field reconnaissance of the study area noting existing land uses, existing roadway geometric and traffic control conditions, traffic flow patterns, transit facilities and services, pedestrian facilities, bicycle facilities (if any), as well as opportunities and constraints pertaining to access from the intersecting sidestreets and driveways.*

Berger will first examine current land use maps for the area, noting traffic generators and key sensitive facilities. Berger will conduct windshield and walking surveys in the study area to obtain a comprehensive understanding of current conditions, constraints, and opportunities for improvements. Points of particular interest will be photographed for inclusion in public meetings and reports. Particular attention will be paid to access to the Friendship Heights Metro Station. Tenleytown Metro Station will also be observed, as outside the strict limits of the study, but within the land-use study area.

*2.03 Collect land use and transportation information from existing reports on proposed future development projects in both the Montgomery County and District of Columbia portions of Friendship Heights, including number of proposed residences, square footage of commercial and office space, number of proposed parking spaces, and projected vehicle trips per day.*

Berger will review existing traffic management plans prepared by project proponents and prepare an analysis of the impact of the projected future traffic of these various proposed future development projects on the existing transportation infrastructure.

Berger will review plans and proposals that 1) have been filed with the DC Office of Planning, 2) are consistent with the Master Plan, and 3) in the opinion of the DC

Office of Planning, are likely to be approved for development. Plans that do not meet these criteria will be reviewed at the request of the Project Manager, in coordination with the DC Office of Transportation Planning. Berger will evaluate such projects' traffic management plans in the context of existing and projected "no-build" traffic demand in the corridor.

*2.04: Perform Turning Movement Counts at twelve (12) key intersections during the morning peak period (6 am to 9:30 am) and the afternoon peak period (3:30 pm to 7:00 pm) on typical weekdays. Italics indicate additions to the original scope (October, 2002). Bold indicates the site for pedestrian counts (see 2.09 below.) The following are proposed to be included as key intersections:*

1. **Western Avenue and Military Road**
2. **Western Avenue and Wisconsin Avenue** (combined with Military Road for pedestrian counts)
3. *Western Avenue and Jenifer Street*
4. *Western Avenue and 44<sup>th</sup> Street*
5. *Military Road, 41<sup>st</sup> Street and Reno Road*
6. **Wisconsin and Jenifer Street**
7. *Wisconsin Avenue and Harrison Street*
8. *Wisconsin Avenue and Garrison Street*
9. **Wisconsin Avenue and Fessenden Street**
10. *41<sup>st</sup> Street and Western Avenue*
11. *Wisconsin Avenue, 42<sup>nd</sup> Street and Ellicott Street*

The list of key intersections was refined during the initial scoping meeting with two neighborhood citizens February 19, and the subsequent full ANC meeting on March 13. The data collected will be analyzed using the Highway Capacity Manual procedures and software such as SYNCHRO, CORSIM, and SimTraffic to determine the Level Of Service (LOS) and to identify any operational and safety constraints.

*2.05 Mechanical/continuous vehicle volume, speed and classification survey at locations as agreed upon in the study area, covering a one-week period. This effort will take place concurrent with the turning movement counts.*

Six locations are recommended based on the scoping process.

Military Road between Western Avenue and 41<sup>st</sup> Street  
 Wisconsin Avenue between Jenifer and Ingomar  
 Western Avenue between Livingston and Wisconsin Avenue  
 42<sup>nd</sup> Street between Military and Harrison Street  
 River Road between Fessendent and Ellicott Streets  
 41<sup>st</sup> Street between Jenifer and Ingomar Streets

*2.06 Travel time and delay studies along the Corridor, during the morning and afternoon peak periods noting sections and nodes experiencing delays including the intersecting roadways.*

Floating car surveys taking place over three days during morning and afternoon peak periods, and on one Saturday for an eight hour period from 10 am to 6 pm, are proposed along Wisconsin Avenue, Western Avenue and Military Road within the study area to record travel time and any delay information. This task will include observation and reporting of movements that could result in neighborhood traffic intrusion.

*2.07 Generalized origin-destination observations at key portal points along the corridor- see item 2-10.*

*2.08 Parking Surveys*

The Berger Team will identify on-street and off-street parking in the area and survey parking capacity and utilization in the area. This will include an inventory of on-street parking (number of spaces by street); public and private off-street parking availability and restrictions; parking signage (location of signs and restrictions indicated, including restrictions for neighborhood uses, restrictions by time-of-day and/or direction), parking time limits, rates; and anecdotal observations of probable violations while performing the inventory (e.g., a non-resident parking in an area marked for residents, double-parking, etc.). On-street parking utilization will be reviewed through multiple iterations of a “windshield survey”, conducted from approximately 10 am to 6 pm. Off-street parking utilization in privately-operated public garages and lots will be reviewed at least twice for each major lot on a weekday morning and afternoon. In addition, peak hour parking in neighborhoods or in Mall lots that is obviously related to Metro use will be noted anecdotally.

Parking strategies to ensure parking availability for customers of local businesses and for residents will be evaluated; issues such as enforcement (or lack thereof) for existing regulations will be evaluated; additional parking limitations to facilitate traffic movement on major roads during peak hours, and/or permitting parking on certain roads during peak hours to discourage through travel, may also be investigated.

*2.09 Queuing observation and Pedestrian Counts*

Berger will identify queuing on major roads in the study area using both mechanical and visual observations. The principal effort will take place congruent with the turning movement counts. However, selected additional side roads may be observed. As note above, pedestrian counts are proposed for key intersections, as follows:

1. Wisconsin Avenue, Western Avenue and Military Road
2. Wisconsin Avenue and Jenifer Street
3. *Wisconsin Avenue and Fessenden Street*
4. Military and 43<sup>rd</sup>

Berger will conduct support analyses with HCM software and SYNCHRO runs.

**2.10 *Origin-Destination Surveys focusing on the number and type of truck traffic occurring in the study area, and the routes used by those trucks (in particular trucks cutting through neighborhoods on local streets).***

Residents have expressed concerns regarding truck traffic and cut-through traffic, in particular trucks and cars cutting through on neighborhood streets. There is also interest in whether trucks are accomplishing local deliveries (e.g., loading and unloading at Mazza Gallerie or Chevy Chase Pavilion), or traveling through the area for other destinations. This will be evaluated by conducting an origin-destination license plate match for trucks at key intersections in the study area, accompanied by license-plate tracking of both cars and trucks at key cut-through streets identified in the study area.

Proposed intersections for truck license plate tracking are as follows:

Western Avenue and 41<sup>st</sup> Street  
 Military Road and 41<sup>st</sup> Street  
 Western Avenue, Wisconsin Avenue and Military Road  
 Wisconsin Avenue and Jenifer Street  
 Wisconsin Avenue and Garrison Street  
 Western Avenue and 45<sup>th</sup> Street

Proposed intersections to observe truck and auto cut-through traffic are as follows:

Military Road between 42<sup>nd</sup> Place and 43<sup>rd</sup> Street (to observe both roads)  
 44<sup>th</sup> Street and Garrison

Following the survey, truck license plates will be matched up by plate number and time to identify the entry to and exit from the zone, the time elapsed (to indicate direct passage or delivery and/or pick up) and the approximate route through the zone.

**2.11 *Prepare a brief Report summarizing the Data and analyses performed according to Sub-tasks 2.01 thru 2.10.***

Berger will prepare a report summarizing key findings from the data collection and initial analysis efforts. This will include graphics, tables and maps to identify issues such as accident locations, truck and auto traffic volumes, speeding patterns, cut-through traffic, and “local” versus “through” truck volumes.

**2.12 *Public Meeting***

Berger will secure the location, provide visuals, sign-in sheets, comment forms and talking points. In addition, Berger will perform the following tasks:

- a) Berger will draft a Public Notice of the meeting for publication in one (1) local newspaper of record (Washington Post) and one neighborhood newspaper.
- b) Berger will review, log, and generally categorize *substantive* written comments that are received from the public during the specified comment periods after each

public meeting. General comment letters from citizens will be responded to with a standard letter of acknowledgement if so requested by DDOT.

- c) Comments received that contain a complete mailing address will be geocoded and visually mapped to ascertain the geographic location of public participants in the public involvement process.

## **Task #2 to be completed Week Eight**

**This Public Meeting is proposed to be scheduled for Week 10.**

### **Task 3: Short-term Options**

Berger will analyze the current and projected future vehicular, bicycle and pedestrian traffic conditions and identify short-term options which could be implemented within 12 months to alleviate the impact of truck traffic, improve mobility, safety and reduce congestion. One key focus of analysis will be short-term measures to improve access to the Friendship Heights Metro Station (and possibly the Tenleytown Metro Station). Short-term options will include traffic control measures such as increased enforcement of speed regulations, traffic calming measures, improved signage, signalization, channelization, etc. Measures such as access restrictions and turning restrictions may be considered under either short-term or long-term options, depending on site-specific conditions.

Berger will work closely with the Project Manager to ensure that proposed traffic calming, signage and signalization measures are consistent with District of Columbia policies, as well as corresponding to neighborhood wishes. Traffic calming options may be recommended to be implemented on a trial or temporary basis for further evaluation, prior to implementing a permanent solution. Berger will analyze speed, congestion and capacity impacts from any proposed recommendations. As part of this analysis Berger will calculate the impact of each proposed improvement on mobility, safety, and level of service within the study area. Berger will use Synchro software to analyze average delays, queues and travel times along the study area both with and without the recommended short-term options. Berger will also prepare a brief report summarizing study findings and recommended short-term improvements.

## **Task #3 to be completed Week 12**

### **Task 4: Long-term Options**

Berger will analyze the current and projected future traffic situation and identify long-term options to reduce the impact of truck traffic, improve mobility and safety and reduce congestion. One key focus of analysis will be long-term measures to improve access to the Friendship Heights Metro Station (and possibly the Tenleytown Metro Station). Options will include measures such as road widening, intersection modifications, and other long-term improvements that would take longer than 12 months to implement. Access and turning restrictions may also be proposed as either long-term or short-term options. Berger will also identify methods of improving transit, pedestrian and bicycle connections, such as sidewalk improvements to bus stops, striping roadways for bike lanes in conjunction with a roadway improvement, etc.



As part of this analysis Berger will calculate impact of each proposed improvement on mobility, safety, and level of service. Berger will also use Synchro to analyze average delays, queues and travel times along the major study area both with and without the recommended long-term options. Berger will prepare a brief report summarizing findings and recommended long-term improvements.

**Task #4 to be completed Week 12**

**Task 5: Draft Report**

Berger will prepare a draft report of findings and recommendations regarding traffic and safety improvements from Tasks 2, 3 and 4, including budget estimates and schedules for recommended short and long term improvements. The report to a large extent will incorporate the reports prepared for Task 2, 3 and 4, with additional organization, an Introduction, and an Executive Summary. Berger will make 20 copies available to District and Federal agencies, and stakeholder groups.

**Task #5 to be completed Week 13**

**Task 6: Public meeting**

Berger will conduct a public meeting to review options with ANC 3-E and other community groups and stakeholders.

Berger will secure the location, provide visuals, sign-in sheets, comment forms and talking points. In addition, Berger will perform the following tasks:

- a) Berger will draft a Public Notice of the meeting for publication in one (1) local newspaper of record (Washington Post) and one neighborhood newspaper.
- b) Berger will review, log, and generally categorize *substantive* written comments that are received from the public during the specified comment periods after each public meeting. General comment letters from citizens will be responded to with a standard letter of acknowledgement if so requested by DDOT.
- c) Comments received that contain a complete mailing address will be geocoded and visually mapped to ascertain the geographic location of public participants in the public involvement process.

**Task #6 is proposed for Week 15.**

**Task 7: Final Report**

Berger will incorporate comments from the public meeting and District and Federal agencies into a final report, including budget estimates and schedules for recommended short and long term improvements, and make 20 copies available to District and Federal agencies, and stakeholder groups.

**Task #7 to be completed Week 18**

### **Task 8: Public Meeting**

Berger will conduct a final public meeting to review the final report with the ANC 3-E and other community groups and stakeholders.

Berger will secure the location, provide visuals, sign-in sheets, comment forms and talking points. In addition, Berger will perform the following tasks:

- a) Berger will draft a Public Notice of the meeting for publication in one (1) local newspaper of record (Washington Post) and one (1) neighborhood newspaper.
- b) Berger will review, log, and generally categorize *substantive* written comments that are received from the public during the specified comment periods after each public meeting. General comment letters from citizens will be responded to with a standard letter of acknowledgement if so requested by DDOT.
- c) Comments received that contain a complete mailing address will be geocoded and visually mapped to ascertain the geographic location of public participants in the public involvement process.

### **Task #8 to be completed Week 20**

#### **Deliverables**

- ◆ Detailed scope of work and study schedule and project budget.
- ◆ Draft report on findings and preliminary list of recommended short-term and long-term improvements
- ◆ Draft report of short-term and long-term improvements
- ◆ Final report of short-term and long-term improvements
- ◆ Visual aids including maps or aerial photos of study area as needed
- ◆ Monthly progress reports

#### **Coordination**

Consultant will work closely with the DPW/DDOT/Traffic Services Administration, the ANC 3-E and other community groups, stakeholders and the DC Office of Planning.

#### **Key Dates/Schedule**

Week 2: Conduct a scoping meeting with Advisory Neighborhood Commissions 3-E and other community groups.

Week 8: Determine existing traffic volumes and level of service for roadway segments within the study area. Identify turning motions at key intersections.

Week 10: Public Meeting

Week 12: Identify short-term and long-term improvements to improve mobility, safety and reduce congestion.

Week 13: Draft Report

Week 15: Public Meeting

Week: 18/20: Final Report and Public Meeting